LoadRunner and Performance Center

**System Requirements
(Product Availability Matrix)**

MICRO FOCUS®

Legal Notices

Disclaimer

Certain versions of software and/or documents ("Material") accessible here may contain branding from Hewlett-Packard Company (now HP Inc.) and Hewlett Packard Enterprise Company. As of September 1, 2017, the Material is now offered by Micro Focus, a separately owned and operated company. Any reference to the HP and Hewlett Packard Enterprise/HPE marks is historical in nature, and the HP and Hewlett Packard Enterprise/HPE marks are the property of their respective owners.

Warranty

The only warranties for Seattle SpinCo, Inc. and its subsidiaries ("Seattle") products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Seattle shall not be liable for technical or editorial errors or omissions contained herein. The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Except as specifically indicated, valid license from Seattle required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

Contents

This document (previously named Product Availability Matrix or PAM) provides up-to-date system requirements and supported environments for installing and running LoadRunner and Performance Center.

LoadRunner and Performance Center Host System Requirements (Windows)

This section provides system requirement information for the following products:

- LoadRunner Full
- Performance Center Host
- VuGen Standalone
- Analysis Standalone

- Load Generator
- Monitor over Firewall
- MI Listener
- TruClient Standalone

Hardware requirements

This table provides hardware requirements for the products listed above. Memory and CPU requirements vary per protocol and system under test.

Hardware component	Supported / Recommended
Processor	• 2 core CPU • 8 core CPU (Recommended)
Processor for UI-level protocols*	• 8 core CPU • 16 core CPU (Recommended)
Memory (RAM)	• 8 GB • 16 GB (Recommended)
Memory (RAM) for UI-level protocols*	• 16 GB • 32 GB (Recommended)
Available hard disk space	• 50 GB • 100 GB; SSD drive (Recommended)
Network card	1 Gbit/s

* Such as TruClient, Citrix, SAP GUI, and so on.

Software requirements

This table provides software requirements for the products listed above.

Software component	Supported / Recommended
Operating system (See Windows Updates below)	• Microsoft Windows 7 SP1 64-bit (Recommended) • Microsoft Windows 8.1 64-bit* • Microsoft Windows 10 64-bit (versions 1507, 1607, 1703, 1709, 1803, 1809) • Microsoft Windows Server 2008 R2 SP1 64-bit** • Microsoft Windows Server 2012 R2 64-bit* (Recommended) • Microsoft Windows Server 2016 64-bit***
Browser (used for recording and replaying protocols only)	• Microsoft Internet Explorer 10 • Microsoft Internet Explorer 11 (Recommended) • Microsoft Edge (not supported for TruClient)
Screen resolution	• 1366x768 or higher • 1600x900 or higher (Recommended)

* Can only be used with Microsoft Internet Explorer 11.
** Recommended for TruClient Vusers.
*** We recommend enabling Desktop Experience when using this operating system.

Windows updates

Before you install any components on a Windows machine, make sure that the full set of Windows updates has been installed, or install the Windows updates listed in the table below.

Note: Before you install any of the Windows updates, disable UAC (User Account Control) and restart the computer.

Windows version	Required updates
• Windows 7 64-bit • Windows 2008 R2 64-bit	• SP1 • Update for Universal C Runtime (UCRT) in Windows KB2999226 x64
• Windows 8.1 64-bit* • Windows 2012 R2 64-bit*	Install the following pack of updates: 1. KB2919442 x64 or KB2970551 x64 (one of these two updates) 2. KB2919355 x64 3. KB2932046 x64 4. KB2959977 x64 (if applicable) 5. KB2937592 x64 6. KB2938439 x64 7. KB2934018 x64 8. KB2999226 x64
• Windows 10 64-bit*	KB4022725

* The list of required updates might change due to Microsoft's update delivery policy or new Windows update releases. If you experience any issues, please contact Micro Focus Software Support.

Component coexistence

The LoadRunner Full installation is installed on a single machine.

All the other LoadRunner components (listed on page 4) must be installed on a separate machine, except for Analysis Standalone which can coexist on the same machine with VuGen Standalone or TruClient Standalone.

Supported coexistence

✓	**Analysis Standalone** installed with **VuGen Standalone**
✓	**Analysis Standalone** installed with **TruClient Standalone**

Analysis database types

The following table lists the database types and versions that are supported by LoadRunner Analysis.

Supported database type	Versions
MS Access	2010, 2013
MS SQL	2008 R2, 2012
SQLite	v3

LoadRunner Load Generator System Requirements (Linux)

Linux installation

The following table lists the system requirements and distributions for installing the Load Generator component on a Linux machine (only the Load Generator component is supported for installation on Linux).

Note: Load generators support all X Servers.

Component	Supported / Recommended
Processor	2 core CPU 8 core CPU (Recommended)
Distribution	• Oracle Enterprise Linux 7.1 UEK, 7.2-7.3 64-bit • Red Hat Enterprise Linux 6.7-6.10, 7.3 64-bit • Red Hat Enterprise Linux 7.4 64-bit* (Recommended) • SUSE Linux Server Enterprise (SLES) version 12.1 64-bit • Ubuntu Server Linux 14.04 LTS 64-bit • Ubuntu Server Linux 16.04 LTS 64-bit* (Recommended)
Memory (RAM)	8 GB 16 GB (Recommended)
Available hard disk space	10 GB 20 GB (Recommended)

* Supports Dockerized load generators.

Prerequisite packages for 64-bit installations

The following table lists the packages that must be installed on Linux machines before installing the 64-bit version of a load generator.

Distribution	Prerequisites	How to check if it is installed	How to install
Red Hat family including Oracle Linux	• glibc.i686 • glib2.i686 • keyutils-libs.i686	• rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'glibc\.(i686|i386)' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'glib2\.(i686|i386)' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'keyutils-libs\.(i686|i386)'	• yum install <package_name> • yum install keyutils-libs.i686 • yum install libidn.i686 **Note**: If your machine already has GLib 64-bit (such as OL7), make sure to update it to the latest version to avoid conflicts before installing GLib2 32-bit.
	• libstdc++.i686 • libstdc++47.i686 (Amazon Linux)	• rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'libstdc\+\+[0-9]*\.(i686|i386)'	
	• libidn.i686	• rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'libidn\.(i686|i386)'	
	• ncurses-libs.i686 (required by Security Console)	• rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'ncurses(-libs)?\.(i686|i386)'	
Ubuntu Server	• libc6-i386 • libglib2.0-0:i386 • lib32stdc++6 • libkeyutils1:i386 • lib32ncurses5 (required by Security Console) • libidn11:i386	• dpkg -l libc6-i386 | grep 'ii' • dpkg -l libglib2.0-0:i386 | grep 'ii' • dpkg -l lib32stdc++6 | grep 'ii' • dpkg -l libkeyutils1:i386 | grep 'ii' • dpkg -l lib32ncurses5 | grep 'ii' • dpkg -l libidn11:i386 | grep 'ii'	• apt-get install <package_name> • apt-get install libkeyutils1:i386 • apt-get install libidn11:i386

Distribution	Prerequisites	How to check if it is installed	How to install
SUSE Linux Enterprise Server (SLES) 64-bit	• lincurses5 32-bit • glibc 32-bit • libglib-2_0-0-32bit • libstdc++6 32-bit • keyutils-libs-32bit • libidn11-32bit	• rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'ncurses[0-9]*-32bit' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'glibc-32bit' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'libglib-2_0-0-32bit' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'libstdc\+\+6-32bit' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'keyutils-libs-32bit' • rpm -qa --qf '%{NAME}.%{ARCH}\n' | grep -E 'libidn11-32bit'	• zypper install libncurses5-32-bit • zypper install glibc-32-bit • zypper install libglib-2_0-0-32bit • zypper install libstdc++6-32-bit • zypper install libkeyutils1-32bit • zypper install libidn11-32bit

Performance Center Server System Requirements

The following table displays the system requirements for installing a Performance Center server.

Component	Supported / Recommended
Processor	• 4 core CPU • 8 core CPU (Recommended)
Memory (RAM)	• 8 GB • 16 GB or higher (Recommended)
Available hard disk space	• 80 GB • 100 GB; SSD drive (Recommended)
Operating system	• Microsoft Windows Server 2008 R2 SP1 64-bit • Microsoft Windows Server 2012 64-bit • Microsoft Windows Server 2012 R2 64-bit (Recommended) • Microsoft Windows Server 2016 64-bit*
Web server	IIS 7.5, 8.0, 8.5, 10.0

* We recommend enabling Desktop Experience when using this operating system.

Performance Center Web Client System Requirements

The following table displays the system requirements for Performance Center web client.

Component	Supported / Recommended
Screen resolution	• Microsoft Windows: 1366x768 or higher • Microsoft Windows: 1600x900 or higher (Recommended) • Mac OS: 1280x800 or higher
Browser	Windows*: • Google Chrome (Recommended) • Microsoft Internet Explorer 11** • Mozilla Firefox Mac OS: • Apple Safari

* For optimal performance on Windows, we recommend using Google Chrome.

** When using Microsoft Internet Explorer, we recommend opening a new browser window/session.

ALM System Requirements

As a prerequisite to installing Performance Center components, you must install Micro Focus Application Lifecycle Management (ALM).

For ALM system requirements, see the System Requirements guide available from the ALM Help Center.

Cloud Computing - Amazon AWS

LoadRunner and Performance Center are certified to be installed and run under Amazon Web Services (AWS), using a BYOL (Bring Your Own License) model.

Requirements for deploying LoadRunner or Performance Center on AWS:

- All components of the cloud computing environment follow the system requirements specified in this document. For the AWS requirements for ALM (Performance Center only), see the ALM System Requirements guide available from the ALM Help Center.

- The required ports are open for communication. For the required ports, see Load Generators on the Cloud in the LoadRunner help, and Communications Paths in the Performance Center Installation Guide.

Note:

- Cloud load generators can be provisioned using the built-in functionality of LoadRunner or Performance Center. For details, see Manage Load Generators on the Cloud in the LoadRunner help and Provision Cloud load generators in the Performance Center help. All other components must be manually installed and configured by the user.

- To improve performance, it is preferable to deploy the ALM server, Performance Center server and hosts, and the database in the same region. Consult the AWS help for best practices about network performance.

- Cloud load generator ports are configurable. When all the components are in the cloud, the ports to use are defined by the cloud provider (they are not based on internal IT policies).

Integrations

The following integrations are supported with this version of LoadRunner and Performance Center.

Integrations with other Micro Focus products

To view supported product version information online, see the Micro Focus Integration Catalog.

Note: IPv6 support is provided for Application Lifecycle Management and SiteScope.

Product	LoadRunner	Performance Center
Application Lifecycle Management (ALM) 12.60, 12.60 P1, 12.60 P2	✓	✓
ALM Octane 12.55.4 or later (using Jenkins plugin 5.4 or later)	x	✓
Diagnostics 9.51	✓	✓
Mobile Center 3.1 (supported in TruClient – Native Mobile protocol only)	✓	✓
Network Virtualization 9.14	✓	✓
Real User Monitor (RUM) 9.51	x	✓
Service Virtualization 5.1	✓	✓
SiteScope 11.51, 11.60	✓	✓
Unified Functional Testing (UFT) 14.53	✓	✓

Integration with non-Micro Focus products

The following integrations with non-Micro Focus products are compatible with this version of LoadRunner and Performance Center.

Supported products	Supported versions	Comments
Bamboo	Bamboo 5.9.10-6.x	Uses App Delivery Management Bamboo plugin 1.2.1, available from Atlassian Marketplace. See the Performance Center and Bamboo documentation in the Performance Center help.
Jenkins	Jenkins server 2.60.3 and later	Uses Micro Focus Application Automation Tools plugin 5.8, available from Jenkins. See the Jenkins documentation in the LoadRunner or Performance Center help.
TeamCity*	TeamCity 10.0.5	Uses Performance Center CI plugin 1.0.1, available from JetBrains. See Performance Center and TeamCity in the Performance Center help.
Azure DevOps/TFS*	Tested with Team Foundation Server 2018 and Azure DevOps Server 2019	Uses Performance Center CI plugin 1.0.2, available from Visual Studio Marketplace. See Performance Center and Azure DevOps (previously TFS/VSTS) in the Performance Center help.
New Relic*	Tested with New Relic REST API (v2)	See New Relic Monitor in the Performance Center only.
Dynatrace AppMon	Tested with Dynatrace AppMon 7.0	See the Dynatrace AppMon Monitor documentation in the LoadRunner or Performance Center help.
AppDynamics*	Tested with AppDynamics 4.4	See the AppDynamics Monitor documentation in the Performance Center help.
CA Application Performance Management (CA APM)	SaaS: 10.6 or later	See the CA APM documentation in the LoadRunner or Performance Center help.
InfluxDB*	1.7 or later	See Manage analysis servers in the Performance Center help.
Kubernetes*	1.7 or later	See Manage elastic hosts in the Performance Center help.
Swarm*	1.3 or later	See Manage elastic hosts in the Performance Center help.

*Supported in Performance Center only

Supported GUI Languages

Language Packs enable you to view the LoadRunner and Performance Center user interfaces in your local language.
The following languages are supported:

Language	LoadRunner	Performance Center
Chinese – Simplified	✔	✔
French	✔	✔
German	✔	✔
Italian	✔	x
Japanese	✔	✔
Korean	✔	✔
Russian	✔	✔
Spanish	✔	x

Protocols

The following table lists the supported Vuser protocols in LoadRunner.

Protocol	Application	Application supported versions	Server supported versions	Native 64-bit client recording	64-bit replay	Async	IPv6 support	IP spoofing support	NV 9.14 support	Load Generator OS	Multi-protocol	Comments
Remote protocols												
Citrix ICA	Citrix Receiver for Windows	4.x or later. Check the Citrix Product Matrix for Receiver and Server compatibility.	XenApp and XenDesktop 7.15, 7.18, Citrix Virtual Apps and Desktops 1811 StoreFront/Web Interface 3.12.3, 3.15.0, 1811.1	N	N	N	Y	N	Y	Any supported Windows OS	Y	Citrix Agent supports XenApp and XenDesktop servers. Network Virtualization supports Load Generator mode only. Recomended version of Citrix Receiver is 4.9.6 (CU 6). Citrix Agent does not support text-trapping functions (ctrx_sync_on_text_ex and ctrx_get_text) on Windows 10, Windows Server 2016, or later versions of Windows.
RDP (Remote Desktop Protocol)	Remote Desktop Connection	7 7.1 8.1 10 10.2 10.4 10.6	Windows 2008 Standard/R2 Windows 7 64-bit Windows 8/8.1 Windows 2012 Standard/R2 Windows 10 (1809) Windows 2016	Y	N	N	Y	Y	Y	Any supported Windows OS	Y	Requires workaround connection to Windows 10 or Windows Server 2016.
Teradici PCoIP	Teradici PCoIP Client and compatible implementations	N/A	Teradici PCoIP Agent 2.12 - 2.14.0 Teradici PCoIP Connection Manager 1.8.0-1.8.2 Teradici PCoIP Security Gateway 1.14-1.14.1 VMware Horizon View 6.2.1	N	N	N	N	N	Y	Any supported Windows OS	N	Network Virtualization supports Load Generator mode only. LoadRunner PCoIP client does not support connection to application pools (published applications). You can connect only to desktop pools.
RTE (Remote Terminal Emulator)	PowerTerm for Micro Focus (built-in version with LoadRunner). Supported modes: 3270, 5250, VTxxx	12.2	N/A	N	N	N	Y	N	Y	Any supported Windows OS (except Windows 10 or Windows Server 2016) *Any supported Windows OS	N	
GUI protocols												
SAP GUI	SAP GUI for Windows	7.50 7.60	SAP R/3 4.60c SAP ERP ECC 5.0 SAP ERP ECC 6.0 SAP HANA Edition	N	N	N	Y	N	Y	Any supported Windows OS	Y	
TruClient - Web	MS Internet Explorer Chromium TruClient Browser	IE 10, 11 Built-in 68.0.3440.106 (64-bit) Built-in 58.0.2 (64-bit)	N/A	Y	Y	N/A	Y	Y	Y	Any supported Windows OS	N	TruClient Browser is based on Mozilla technology and productized in 12.60.
TruClient - Mobile Web	TruClient Browser	Built-in 58.0.2 (64-bit)	N/A	Y	Y	N/A	Y	Y	Y	Any supported Windows OS	N	
TruClient - Native Mobile	Refer to the Mobile Center documentation for details		Mobile Center 3.1	N/A	N/A	N/A	N/A	N/A	Y (supported through Mobile Center server)	Any supported Windows OS	N	Mobile Center is required for this protocol. Physical devices are necessary to record and replay scripts. TruClient Native Mobile Brower is based on Mozilla technology and has built-in version 50.0.0 (64-bit)

Protocol	Application	Application supported versions	Server supported versions	Native 64-bit client recording	64-bit replay	Async	IPv6 support	IP spoofing support	NV 9.14 support	Load Generator OS	Multi-protocol	Comments
Add-in protocols												
C++.NET Template (Visual Studio Add-in)	MS Visual Studio	2013 2015 2017	N/A	N/A	N/A	N/A	N/A	Y	Y	Any supported Windows OS	N	
C#.NET Template (Visual Studio Add-in)	MS Visual Studio	2013 2015 2017	N/A	N/A	N/A	N/A	N/A	Y	Y	Any supported Windows OS	N	
VB.NET Template (Visual Studio Add-in)	MS Visual Studio	2013 2015 2017	N/A	N/A	N/A	N/A	N/A	Y	Y	Any supported Windows OS	N	
Java Vuser for Continuous Delivery (Eclipse Add-in for Developers)	Eclipse IDE	2018-09 (4.9), 2018-12 (4.10), 2019-03 (4.11)	N/A	N/A	N/A	N/A	N/A	N/A	Y	Any supported Windows OS	N	Recommended to use Selenium 3.13 and JUnit 5.4.0. Java JRE is required. Supported versions are Java 7, 8 and 11.
	JUnit	5.3.1, 5.4.0											
	Selenium	3.12, 3.13, 3.14											
Unit Test based on .NET (Visual Studio Add-in for Developers)	MS Visual Studio	2013 2015 2017	N/A	N/A	N/A	N/A	N/A	N/A	Y	Any supported Windows OS	N	
	NUnit	3.4											
Custom Protocols developed with Protocol SDK	Vendor dependent	Visual Studio 2015	Vendor dependent	Vendor dependent	Vendor dependent	Vendor dependent	Vendor dependent	Vendor dependent	Y	Vendor dependent	N	
Web protocols												
Flex	Flex SDK 4.6 AMF0 AMF3 RTMPT RTMP, RTMPS		LCDS 3.1/4.7 BlazeDS 4 FMS3 FMS4 GraniteDS 2.2	Y	N	Y	Y	Y	Y	Any supported Windows OS	Y	
	Browser support: IE	Same support as in Web HTTP/HTML											
Oracle NCA	Oracle Applications	JInitiator 1.3.1.18 JInitiator 1.1.8.16	Forms 11g Oracle E-Business Suite 11, 12.2.x	Y	N	N	Y	Y	Y	Any supported OS	Y	To work with Oracle client, install one of the following JVMs: JRE 7/8 or JDK 7/8.
Oracle - Web	MS Internet Explorer	Same as Web - HTTP/HTML protocol	N/A	Y	N	Y	Y	Y	Y	Any supported OS	Y	To work with Oracle client, install one of the following JVMs: JRE 7/8 or JDK 7/8.
	Oracle Applications	JInitiator 1.3.1.18 JInitiator 1.1.8.16	Forms 11g Oracle E-Business Suite 11, 12.2.x									

Protocol	Application	Application supported versions	Server supported versions	Native 64-bit client recording	64-bit replay	Async	IPv6 support	IP spoofing support	NV 9.14 support	Load Generator OS	Multi-protocol	Comments
SAP - Web	Same as Web - HTTP/HTML protocol	Same as Web - HTTP/HTML protocol	N/A	Y	N	N	Y	Y	Y	Any supported OS	Y	
Siebel - Web	Oracle (Siebel) CRM	N/A	8 8.1 8.2.2 (OpenUI)	Y	N	N	Y	Y	Y	Any supported OS	Y	
Web - HTTP/HTML	MS Internet Explorer	IE 10, 11, Edge	N/A	Y	N	Y	Y	Y	Y	Any supported OS	Y	GWT: GWT Request Factory requires GWT 2.7.0 / 2.8.0 and Java 1.8. JavaScript language is not supported in Linux RHEL 6.x (use other Linux distributions). DFE is not supported in Linux OSs.
	Google Chrome	latest		Y								
	Firefox	latest		N								
	PCAP	libpcap tcpdump										
	Network Sniffer	WinPcap 4.1.3 Wireshark 2.2.0-2.2.7 Fiddler 4.5.x HAR file 1.2		N/A								
Web Services	MS Internet Explorer Google Chrome Firefox	IE 10, 11, Edge latest latest	WSDL 1.0/1.1 SOAP 1.1/1.2 WCF UDDI 2/3 WS-Security 1.0/1.1 Attachments: Dime/Mime/MTOM/ Base64Binary JMS	Y	N	Y	Y	Y	Y	Any supported Windows OS	Y	Supported SOAP features: WS HTTP-binding, Net TCP Binding, Named Piped, Basic HTTP Binding and various custom binding, Federation scenarios, WS-SecureConversation, WS-ReliableMessaging, WS-Addressing, Username Token, X509 Certificate Token, Kerberos Token, Message signature, Message encryption.
TruWeb	N/A	N/A	N/A	N/A	Y	Y	N	N	N	Windows 10 64-bit, Windows 2012 R2 64-bit, Windows 2008 R2 64-bit, Ubuntu 16.04 64-bit, Oracle Enterprise Linux 7.3 64-bit	N	Replay is supported only in 64-bit mode.
IoT protocols												
MQTT	MQTT protocol 3.1, 3.1.1 (built-in version with LoadRunner)		RabbitMQ Mosquitto EMQ HiveMQ	N/A	N	N	N	Y	Y	Any supported OS	Y	

Protocol	Application	Application supported versions	Server supported versions	Native 64-bit client recording	64-bit replay	Async	IPv6 support	IP spoofing support	NV 9.14 support	Load Generator OS	Multi-protocol	Comments
.NET/Java protocols												
.NET	.NET Framework	3.5 SP1* 4.5.2* - 4.7.2*	N/A	Y**	N	N	N/A	N	Y	Any supported Windows OS	N	* Supported on backward compatibility level. ** AUTs compiled in "AnyCPU" mode only.
Java Record Replay	*Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.7.x 1.8.x 11.x	WebLogic 11.x, 12.1.3 Generic	Y	Y	N	N/A	N	Y	Any supported Windows OS	N	Network Virtualization supports Load Generator mode only. * Refer to LoadRunner Help for detailed JDK support matrix.
Java over HTTP	*Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.7.x 1.8.x 11.x	N/A	Y	N	N	Y	Y	Y	Any supported Windows OS	N	64-bit JRE is supported for recording only. * Refer to LoadRunner Help for detailed JDK support matrix.
	Browser support: IE	Same as in Web - HTTP/HTML										
Java Vuser	*Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.7.x 1.8.x 11.x	N/A	N/A	Y	N	N/A	N	Y	Any supported Windows OS	N	Network Virtualization supports Load Generator mode only. * Refer to LoadRunner Help for detailed JDK support matrix.
Mail protocols												
IMAP (Internet Messaging)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS	Y	
MAPI (Microsoft Exchange)	Outlook	2010 2013 2016	Exchange Server 2010, 2013, 2016	N/A	.	N	N/A	N	Y	Any supported Windows OS	N	Network Virtualization supports only Load Generator mode.
POP3 (Post Office Protocol)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS	Y	POP3 S: SSL support.
SMTP (Simple Mail Protocol)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS	Y	SMTP S: SSL support.
Database protocols												
ODBC	ODBC	ODBC Driver Mgr 6.1 - 10.0	N/A	Y	Y	N	N	N	Y	Any supported OS	Y	
Oracle - 2 Tier	Oracle Client	11g R2 12c	Oracle 11g R2 Oracle 12c	Y	N	N	N	N	Y	Any supported OS	Y	

Protocol	Application	Application supported versions	Server supported versions	Native 64-bit client recording	64-bit replay	Async	IPv6 support	IP spoofing support	NV 9.14 support	Load Generator OS	Multi-protocol	Comments
Non-Web protocols												
C Vuser	N/A	N/A	N/A	N/A	Y	N	N/A	Y	Y	Any supported OS	N	Replay only.
DNS (Domain Name Resolution)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS	N	Replay only.
FTP (File Transfer Protocol)		N/A	N/A	Y	N	N	Y	Y	Y	Any supported OS	Y	FTPS is supported in passive mode only.
LDAP (Listing Directory Service)	Based on Microsoft API Based on Mozilla API		(Oracle) Sun ONE 5.2 Oracle DS 11	Y	N	N	N	N	Y	Any supported OS	Y	
Windows Sockets	Winsock	2.x	N/A	Y	N	N	Y	Y	Y	Any supported OS	Y	
Third-party protocols												
SMP (SAP Mobile Platform)			2.3	N/A	N/A	N	N/A	Y	Y	Any supported Windows OS	N	Same as .NET protocol support.
MQTester (Client and Server)	WebSphere MQ	To get updated info about the supported versions, contact OpenText support.		N	N	N	N	N	N	Any supported Windows OS	N	Third-party solution by OpenText. See MQTester documentation for more details and for contact information.
CoAP		Refer to AppDelivery Marketplace for details: https://marketplace.microfocus.com/appdelivery/content/coap-protocol		N/A	N/A	N	N	N	Y	Any supported Windows OS	Y	Third-party solution by Endpoint IOT.
Open source protocols												
JMeter	Apache JMeter	Apache JMeter 4.0 Apache JMeter 5.0 Apache JMeter 5.1 Apache JMeter 5.1.1	N/A	N/A	N/A	N	N/A	N	N	Any supported OS	N	Apache JMeter requires Java JRE or JDK to be installed. Supported JRE or JDK versions are aligned with JMeter.

Send us feedback

Let us know how we can improve your experience with the System Requirements Guide.
Send your email to: docteam@microfocus.com

MICRO FOCUS